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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,437	04/16/2004	Eduardo L. Quioc	5702-01051	1043

7590 10/16/2006

L.C. Begin & Associates, PLLC  
PMB 403  
510 Highland Avenue  
Milford, MI 48381

EXAMINER

ROSENBERG, LAURA B

ART UNIT	PAPER NUMBER
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3616

DATE MAILED: 10/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/826,437	<b>Applicant(s)</b> QUIOC ET AL.	
	<b>Examiner</b> Laura B. Rosenberg	<b>Art Unit</b> 3616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 04 August 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                           | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

### DETAILED ACTION

1. This office action is in response to the amendment filed 04 August 2006, in which claims 1, 6, 7, 9, 13, 14, 19, 20, 23, 26, 27, 29, and 30 were amended and claim 8 was canceled.

### *Claim Objections*

2. Claims 1, 23, 27, and 32 are objected to because of the following informalities:

“the inflatable restraint system” should be changed to --*an* inflatable restraint system-- (claim 1, line 14);

“the inflatable restraint system” should be changed to --the inflatable *airbelt* system-- (claim 23, line 14);

“said inflator body” should be changed to --*an* inflator body-- (claim 27, line 4);

“the inflatable restraint system” should be changed to --the *vehicle occupant protection* system-- (claim 27, line 11);

“the combustion cup” should be changed to --the *booster* cup-- (claim 32, line 3).

Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1-7, 9-21, and 27-34 are rejected under 35 U.S.C. 102(b) as being anticipated by Kirchoff et al. (3,972,545). Kirchoff et al. disclose an inflator (including #5) able to be used with an inflatable restraint system (for example, an airbag), comprising:

- Inflator body (including #6) having a first end (for example, left end in figure 1) and a second end (for example, right end in figure 1)
- Elongate, substantially cylindrical booster cup (including #34) extending in the body, oriented substantially coaxially with the inflator body, and having an outer peripheral wall (for example, outer cylindrical wall) and an end surface (for example, right end in figure 1) extending radially inwardly from the wall
- Plurality of apertures formed in the outer peripheral wall (apertures formed when peripheral wall of tube is ruptured by squib and pyrotechnic material)
- First propellant charge (including #21) positioned in the booster cup
- Second propellant charge (including #18) positioned in the inflator body
- Initiator assembly (including squibs #19, 20) able to activate the first propellant charge, a combustion thereof initiating a combustion of the second propellant charge and ejection of an inflation gas from the inflator body (via discharge orifice #13)
- Inflator body comprises an inner peripheral wall separated from the outer peripheral wall by a substantially annular space, the second propellant charge being positioned in the space, substantially adjacent the outer peripheral wall (best seen in figure 1)

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- Second propellant charge comprise a plurality of propellant tablets (including #18) and substantially fills the space between the outer peripheral wall and the inner peripheral wall of the inflator body (best seen in figure 1)
- Filter (including #22, 24, 28, 29, 30, 32) constraining the second propellant charge in the space (best seen in figure 1)
- Nozzle (including #12) positioned at the second end of the body and defining a nozzle outlet (including #13) able to supply an inflation gas to the inflatable restraint system
- Filter abutting the booster cup end surface (in particular, filter component #22)
- Body has a total length and an area defined by a cross-section, and the filter has a given length about one-half (though not necessarily drawn to scale, filter appears to be about one-half of the total length of the body, as seen in figure 1), the filter occupying a volume determined by multiplying the cross-section of the body by the length of the filter
- Substantially annular space separating inner peripheral wall and outer peripheral wall extends longitudinally in the inflator body from a point proximate the first end up to a point substantially coplanar with the end surface of the booster cup (best seen in figure 1)
- Nozzle constrains the filter against axial displacement (for example, via contact of right end of filter with left end of nozzle including perforated annulus #33, as seen in figure 1)

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- Tablets (including #18) positioned in a geometrically ordered fashion in the annular space (for example, as seen in figure 1)
- Tablets (including #18) stacked adjacently in the annular space and having cylindrical axes oriented substantially perpendicular the inner peripheral wall (for example, as seen in figure 1)
- Booster cup attached to initiator body (including plug at left end of squib #19 that is attached to end cap #7) and suspended therefrom, being supported in the inflator body solely by the attachment to the initiator body (best seen in figure 1)
- Filter is substantially cylindrical and includes a substantially cylindrical periphery positioned adjacent the inner peripheral wall (best seen in figure 1) and a substantially planar end (for example, left end of filter portion #22) positioned flush with the end surface (right end of booster cup)
- Nozzle is threadingly engaged with the inflator body (at screw threads #11)
- Filter length is sized to change the gas pressure resulting from activation of the gas generator (for example, column 4, lines 9-16)
- Perforated disk (for example, including #31, 33) abutting the filter (for example, abutting right end of filter in figure 1)
- Nozzle (including #12) abutting perforated disc (best seen in figure 1)

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 14 and 22-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider et al. (6,279,945) in view of Kirchoff et al. (3,972,545). Schneider et al. disclose an inflatable restraint system (for example, an inflatable safety belt system) able to be used with a motor vehicle (including #10), comprising:

- Inflatable restraint device (including inflatable safety belt #24)
- Inflator (including #42) able to provide an inflation gas to the inflatable restraint device and comprising an elongate substantially cylindrical inflator body (can be seen in figure 1) having a first end (for example, bottom end as seen in figure 1) and a second end (for example, top end as seen in figure 1) and an inner peripheral wall (not shown, but would be interior wall of inflator body)
- Inflatable restraint is an airbelt (including #24)

Schneider et al. do not specifically disclose all of the interior features of the inflator, such as a booster cup, apertures, propellant charge, filter, or nozzle member.

Kirchoff et al. teach an inflatable restraint system, as set forth above, including an elongate booster cup, plurality of apertures, propellant charge, filter, and nozzle member. It would have been obvious to one skilled in the art at the time that the invention was made to modify the inflator of Schneider et al. such that it comprised booster cup, apertures, propellant charge, filter, and nozzle as claimed in view of the teachings of Kirchoff et al. so as to provide a practical, reliable, gas-generating system that will automatically respond to a signal and adjust the rate of inflation to be

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proportionate to the severity of impact, as well as other benefits (Kirchoff et al.:

"Summary of the Invention").

### ***Response to Arguments***

7. Applicant's arguments filed 04 August 2006 have been fully considered but they are not persuasive. Regarding claim 9, MPEP § 2125 states in part:

When the reference does not disclose that the drawings are to scale and is silent as to dimensions, arguments based on measurement of the drawing features are of little value. See *Hockerson-Halberstadt, Inc. v. Avia Group Int 'l*, 222 F.3d 951, 956, 55 USPQ2d 1487, 1491 (Fed. Cir. 2000) (The disclosure gave no indication that the drawings were drawn to scale. "[I]t is well established that patent drawings do not define the precise proportions of the elements and may not be relied on to show particular sizes if the specification is completely silent on the issue."). ***However, the description of the article pictured can be relied on, in combination with the drawings, for what they would reasonably teach one of ordinary skill in the art. In re Wright, 569 F.2d 1124, 193 USPQ 332 (CCPA 1977).***

Per the italicized portion above, while the drawings in the Kirchoff et al. reference are not necessarily drawn to scale, one of ordinary skill in the art could determine from the description and the drawings that the filter has a given length "about one-fourth to one-half of the total length" of the inflator body.



***Conclusion***

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura B. Rosenberg whose telephone number is (571) 272-6674. The examiner can normally be reached on Monday-Friday 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dickson can be reached on (571) 272-6669. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

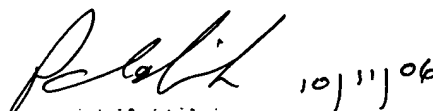
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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Laura B Rosenberg  
Patent Examiner  
Art Unit 3616

LBR



ROBERT L. H.  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3616